

CLAIMS

What is claimed is:

1. A method for determining activity factors of a circuit design, comprising:
assigning an activity factor to one or more node types;
reading one or more signal nets from a netlist of the circuit design;
processing the signal nets to associate one of the node types with each of the signal nets; and
determining an activity factor for each of the signal nets based upon node type.
2. The method of claim 1, the step of processing comprising determining a node type selected from the group of static, dynamic, clock and non-toggling.
3. The method of claim 1, the step of assigning comprising storing the activity factor within a lookup table.
4. The method of claim 1, further comprising determining switching power requirements based upon the activity factor for each of the signal nets.
5. The method of claim 4, the step of determining switching power requirements comprising using the activity factor assigned to the node type of each of the signal nets.
6. A system for determining activity factors of a circuit design, comprising:
a circuit recognition tool responsive to control by an E-CAD tool to determine node types of one or more signal nets of the circuit design;
memory for storing activity factors associated with the node types, the activity factor being determined by node type; and
an analysis tool being operable to access the memory to determine an activity factor for each of the signal nets based upon node type.

7. The system of claim 6, the analysis tool being responsive to control by the E-CAD tool to analyze the circuit design using the activity factors.

8. The system of claim 6, the memory storing an activity factor lookup table, the analysis tool accessing the activity factor lookup table to determine the activity factor for each of the signal nets based upon node type.

9. The system of claim 6, further comprising means for accepting user inputs to specify the activity factors stored in the memory.

10. The system of claim 6, the node types comprising one of static, dynamic, clock and non-toggling.

11. A system for determining activity factors of a circuit design, comprising:

means for reading one or more signal nets from a netlist of the circuit design;
means for processing the signal nets to determine a node type for each of the signal nets; and
means for determining an activity factor for each of the signal nets based upon node type.

12. The system of claim 11, further comprising means for determining a node type selected from the group of static, dynamic, clock and non-toggling.

13. The system of claim 11, further comprising means for assigning an activity factor to each of the node types.

14. The system of claim 13, the means for assigning being responsive to user inputs to store activity factors associated with the node types.

15. A software product comprising instructions, stored on computer-readable media, wherein the instructions, when executed by a computer, perform steps for determining activity factors of a circuit design, comprising:

reading one or more signal nets from a netlist of the circuit design;
processing the signal nets to associate a node type with each of the signal nets;
and

determining an activity factor for each of the signal nets based upon the node type.

16. The software product of claim 15, further comprising determining a node type selected from the group of static, dynamic, clock and non-toggling.

17. The software product of claim 15, further comprising assigning an activity factor to each of the node types.

18. The software product of claim 17, further comprising storing the activity factor within a lookup table.

19. The software product of claim 15, further comprising determining switching power requirements based upon the activity factors for the signal nets.

20. The software product of claim 19, further comprising reading the activity factor for each of the signal nets.